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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/935,891	08/23/2001	Nobuo Sasaki	SCEI 3.0-081	1355

530 7590 09/10/2003

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EXAMINER

RAHMJOO, MANUCHER

ART UNIT

PAPER NUMBER

2676

DATE MAILED: 09/10/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/935,891

Applicant(s)

SASAKI ET AL.

Examiner

Mike Rahmjoo

Art Unit

2676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5-9, 11-15, and 17- 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Shirasaka US Patent 5,838,298.

As per claims 1, 7, 13, 19, 20, and 23 Shirasaka teaches an image rendering means for rendering an image see for example column 4 lines 50- 51; an antialiased image forming means for forming a partially antialiased image by extracting data corresponding to a predetermined line part of the rendered image and for performing antialiasing processing on the extracted data see for example column 3 lines 26- 42 and in the abstract and figures 3- 4; and an overwriting means for overwriting the partially antialiased image onto the rendered image see for example column 4 lines 35- 40; and storage (memory and HD) and distribution (FD) means see for

example column 2 lines 25- 55.

As per claims 2,8,14, and 21 Shirasaka teaches antialiased image forming means extracts only contour lines of the rendered image or extracts the contour lines and contour candidates thereof as the predetermined line part see for example column 3, line 31.

As per claims 3,9,15, and 22 Shirasaka teaches rendering the image - according to polygon information (dot plain A of figure 4), and wherein said antialiased image forming means extracts the predetermined line part according to information that is included in the polygon information and that indicates what part of the rendered image the polygon information corresponds to (notches of a graphic image having the slant portions) see for example figures 4-7 and column 3 lines 35- 46.

As per claims 5,11, and 17 Shirasaka teaches antialiased image forming means determines pixels, on which antialiasing processing is performed, along a direction of X-axis when an angle, which a line represented by the extracted data or the ideal line forms with X-axis, is equal to or larger than a predetennined value, and wherein said antialiased image forming means determines pixels, on which antialiasing processing is performed, along a direction of Y-axis orthogonal to X-axis when an angle, which a line represented by the extracted data or the ideal line forms with X-axis, is smaller than the predetermined value (when alpha falls within a certain range, the contour of the line is shifted in upward/ downward or to the right/ left being in the x/ y directions) see for example column 3 lines 46- 65.

As per claims 6,12, and 18 Shirasaka teaches antialiased image forming means detects the ratio of the area in units of sub-pixels into which one pixel is virtually divided (graphic image having slant portions being drawn on the dot plane A ) see for example column 3 lines 35- 37.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 10, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shirasaka in view of Kaasila US Patent 6,437,793.

As per claim 4, 10, and 16 Shirasaka does not teach antialiased image forming means performs antialiasing processing by determining pixel values of pixels, through which an ideal line corresponding to said line part represented by the extracted data passes, according to a ratio of the area occupied by the ideal line to that of each of the pixels.

However, Kaasila teaches antialiased image forming means performs antialiasing processing by determining pixel values of pixels, through which an ideal line corresponding to said line part represented by the extracted data passes, according to a ratio of the area occupied

by the ideal line to that of each of the pixels see for example column 26 lines 43- 49.

It would have been made obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Kaasila into Shirasaka to provide fairly accurate assignment of such pixel coverage values to reduce the computation which would enhance the quality of rendering of pixels as well as images and see for example column 3 lines 46- 50.

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure; 6,496,187, 6,426,755, 5,742,277, and 6,411,290.

### **Inquiry**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mike Rahmjoo whose telephone number is (703) 305- 5658. The examiner can normally be reached on 6:30- 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on (703) 308- 6829. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872- 9314 for regular communications and (703) 872- 9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305- 4750.

Mike Rahmjoo

August 12, 2003



MATTHEW C. BELLA  
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